<center>REMARKS</center>

This is in full and timely response to the above-identified Office Action. The above listing of the claims supersedes any previous listing. Favorable reexamination and reconsideration are respectfully requested in view of the preceding amendments and the following remarks.

Claim amendments/Status

The claims of the referenced application have been amended to cancel claims 1 to 2. New independent claim 6 and new dependent claim 7 have been added. Claims 3-5 have been amended to depend from newly presented independent claim 6.

Support for the amendments can be found in Figs. 3 and 4 and paragraphs [0023] - [2005], for example.

Rejections under 35 USC § 103

The rejection of claims 1-5 under 35 USC § 103(a) as being unpatentable over Dittmar in view of Haruki is respectfully traversed.

The rejection of claims 1 and 2 is rendered moot by their cancellation. The rejection of claims 3-5, to the degree that it still pertains thereto due to their dependency on newly presented claim 6, is traversed.

In this rejection, the Examiner acknowledges that Dittmar does not disclose a semiconductor device. To overcome this Haruki is cited and, because they both are alleged to relate to a field of endeavor wherein genetic algorithms are used, it is concluded that it would have been obvious to apply Dittmar's algorithm to solving contradictory areas of a physical layout of a semiconductor device such as found in Haruki.

However, this immediately raises the question as to why if Haruki pertains to the same field of endeavor and both use the same type of algorithms, why the hypothetical person of ordinary skill would not simply by-pass Dittmar's teachings and simply use Haruki as is. That is to say, why goes to the time and trouble of

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adapting Dittmar to a process for which Haruki is already suited to performing, and not just use the Haruki process as is?

More specifically, Dittmar is such as to disclose a genetic algorithm which can be used with a hard disc, and is such as to disclose a prior art method wherein a part of two children of a parent is replaced or combined. Nevertheless, this reference fails to disclose or suggest what is now claimed in claim 6.

The Haruki reference discloses a genetic type algorithm which is used for determining the layout of a semiconductor device and wherein a crossover operation is used. This crossover is an operation of forming a new chromosome by cutting a chromosome (layout) of an individual and another chromosome of another individual at the same portion (or position) and forming a combination of different cut portions, or by using an average of the chromosomes of the two individuals. Nevertheless, the reference also is such as fail to meet or suggest the requirements of newly presented claim 6.

Now, while Haruki is such as to mention the term "center of gravity" at column 4, lines 56-65, it must be noted that this has no relationship with that recited in newly presented claim 6. More specifically, in Haruki this relates to the situation wherein an extracted node is given node information (a terminal point of a wiring layer outside of a transistor area or a contact area). The node information is, for example, data of coordinate values of an object (transistor, contact, wiring terminal point, etc.) identified by the node and data of branches directly connected to this node. All coordinate values in each node are represented by relative coordinate values using a representative point (e.g., coordinates of center of gravity for the node) as an origin.

Thus, as will be appreciated, there is no suggestion of the claimed requirements of a generating means for: obtaining a center of gravity of a parent chromosome group in a vector space selected in a crossover process in the genetic algorithm; deciding a hyper-polyhedron on a vector space shown by a peak of vectors which extend to each selected parent chromosome from said center of gravity and are respectively multiplied by predetermined times; and
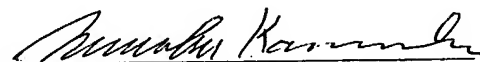
generating a child individual using a uniformly distributed random number so as to be housed inside said hyper-polyhedron.

Indeed, neither of the references taken alone or in combination can be relied upon to suggest what is currently claimed in independent claim 6. The rejection is therefore submitted as being untenable and its withdrawal is requested.

Conclusion

It is respectfully submitted that the claims as they have been amended and newly presented are allowable over the art which has been applied in this Office Action. Favorable reconsideration and allowance of this application are courteously solicited.

Respectfully Submitted,

By _____
Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1700 Diagonal Road, Suite 310
Alexandria, VA 22314
(703) 519-9785